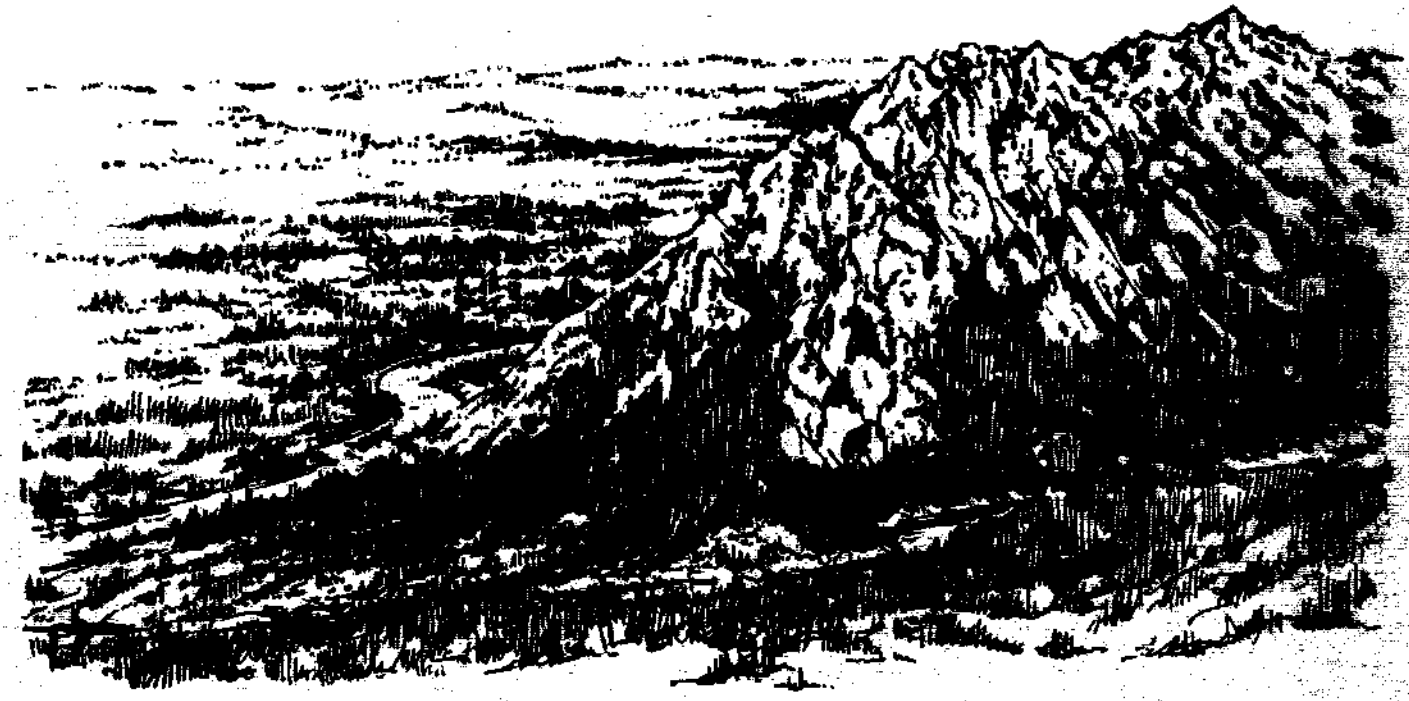
River Management Plan

Beaver Creek

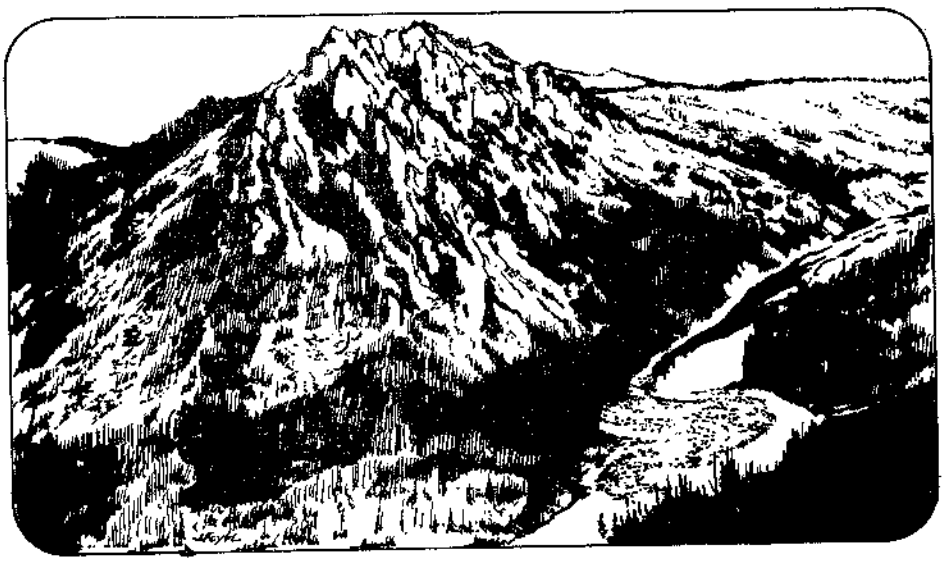
A Component of the National Wild and Scenic Rivers System



U.S. Department of the Interior
Bureau of Land Management
and the Fish and Wildlife Service
Alaska

December, 1983

River Management Plan
for the
Beaver Creek National Wild River



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Fish and Wildlife Service
Alaska

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Part I Introduction

Background

The Alaska National Interest Lands Conservation Act of December 2, 1980 (ANILCA, PL 96-487) established the upper portion of Beaver Creek as a component of the National Wild and Scenic Rivers System, to be administered by the Secretary of the Interior through the Bureau of Land Management (BLM) and the Fish and Wildlife Service (FWS). Subject to prior existing rights, ANI LCA classified and designated approximately 127 miles of Beaver Creek as a "wild" river pursuant to the Wild and Scenic Rivers Act (WSRA, PL 90-542).

The Wild and Scenic Rivers Act declared it a policy of the United States that: selected rivers of the Nation which, with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values, shall be preserved in free-flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations.

Specifically, Section 10(a) of the Wild and Scenic Rivers Act states that: Each component of the national wild and scenic rivers system shall be administered in such a manner as to protect and enhance the values which caused it to be included in said system without, insofar as it is consistent therewith, limiting other uses that do not substantially interfere with public use and enjoyment of these values .....

By classifying Beaver Creek as "wild", Congress mandated that Beaver Creek National Wild River shall "be managed to be free of impoundments and generally inaccessible except by trail, with watersheds or shorelines primitive, and waters unpolluted. . . representing vestiges of primitive America."

ANILCA also directed the Secretary of the Interior to establish detailed boundaries, to prepare a management and development plan, and to present this information to Congress by December 2, 1983. In response to this directive, this river management plan establishes the detailed boundaries and develops the management policies for Beaver Creek National Wild River.

The Bureau of Land Management and Fish and Wildlife Service intends that these management policies be flexible in order to remain responsive to future management needs while at the same time serving as a standard to assure the protection of the river's resources from possible future changes in resource quality and use.

An Environmental Impact Statement (EIS), “Proposed Beaver Creek National Wild River” was approved by the Department of the Interior in 1973. The EIS addressed the impact of designating a portion of Beaver Creek as a component of the National Wild and Scenic Rivers System.

In addition, this plan has been developed in compliance with Title VIII of ANILCA to ensure that management policies will cause the least possible adverse impact to local residents who may depend upon the river corridor for subsistence needs.

The initial 111 mile segment of Beaver Creek National Wild River flows through a portion of the one million acre White Mountains National Recreation Area (NRA) established by ANILCA. The White Mountains NRA is administered by the Bureau of Land Management (BLM) and managed to provide for public outdoor recreation use and enjoyment and such management, utilization, and disposal of natural resources and the continuation of such existing uses and developments as will promote or are compatible with or do not significantly impair public recreation and conservation of values contributing to public enjoyment (ANILCA Section 1312). A comprehensive land use plan for the White Mountains NRA is currently under preparation by the BLM, and is scheduled for completion by December 2, 1985. The land use plan for the White Mountains NRA is being prepared in conjunction with this river management plan. The river corridor boundary within the White Mountains NRA is managed by the BLM.

The final segment of the national wild river flows through a portion of the 8,630,000 acre Yukon Flats National Wildlife Refuge (NWR) also established by ANILCA. The Yukon Flats NWR is administered by the Fish anal Wildlife Service (FWS) and managed to conserve fish and wildlife populations and habitats in their natural diversity, fulfill international treaty obligations with respect to fish and wildlife and their habitats, provide the opportunity for continued subsistence uses by local residents, and ensure that the water quality and quantity necessary to support fish and wildlife resources are maintained (ANILCA Section 302). A comprehensive land use plan for the Yukon Flats NWR is currently under preparation by the FWS, and is scheduled for completion by December 2, 1985. The land use plan for the Yukon Flats NWR is being prepared in conjunction with this river management plan. The river corridor within the Yukon Flats NWR is managed by the FWS.

Because Beaver Creek National Wild River flows through both the White Mountains NRA and the Yukon Flats NWR, this river management plan was jointly prepared by the Bureau of Land Management and the Fish and Wildlife Service. The river management policies developed for Beaver Creek National Wild River reflect this combined planning effort.

The Setting

Beaver Creek is located in Interior Alaska, approximately 50 air miles north of Fairbanks. (See Regional Map.) A moderately swift, shallow stream surrounded by rolling hills in its upper reaches, Beaver Creek flows past the jagged limestone peaks of the White Mountains before slowing to a sluggish meandering river as it passes through the marshy Yukon Flats to the Yukon River, a total distance of 303 miles. Major tributaries include Bear, Champion, Nome, Trail, Wickersham, Fossil, and Victoria Creeks. The region is characterized by alternating upland plateaus and marshy lowlands.

The climate of the area is sub-polar continental, where severe winters with extended periods of 50° F to 60° F below zero are common, summers are short and warm with temperatures sometimes reaching over 80° F, and precipitation ranges only 5 to 20 inches per year. Freeze-up of the rivers and marshes takes place in October, while spring thaws occur during April-May.

Soils are generally shallow and stony, with discontinuous permafrost underlying much of the area. Vegetation, which is highly dependent upon soil conditions, ranges from treeless areas of alpine tundra in the higher elevations, to sparsely vegetated black spruce bogs, and open spruce-hardwood forest in drainages and upland plateaus.

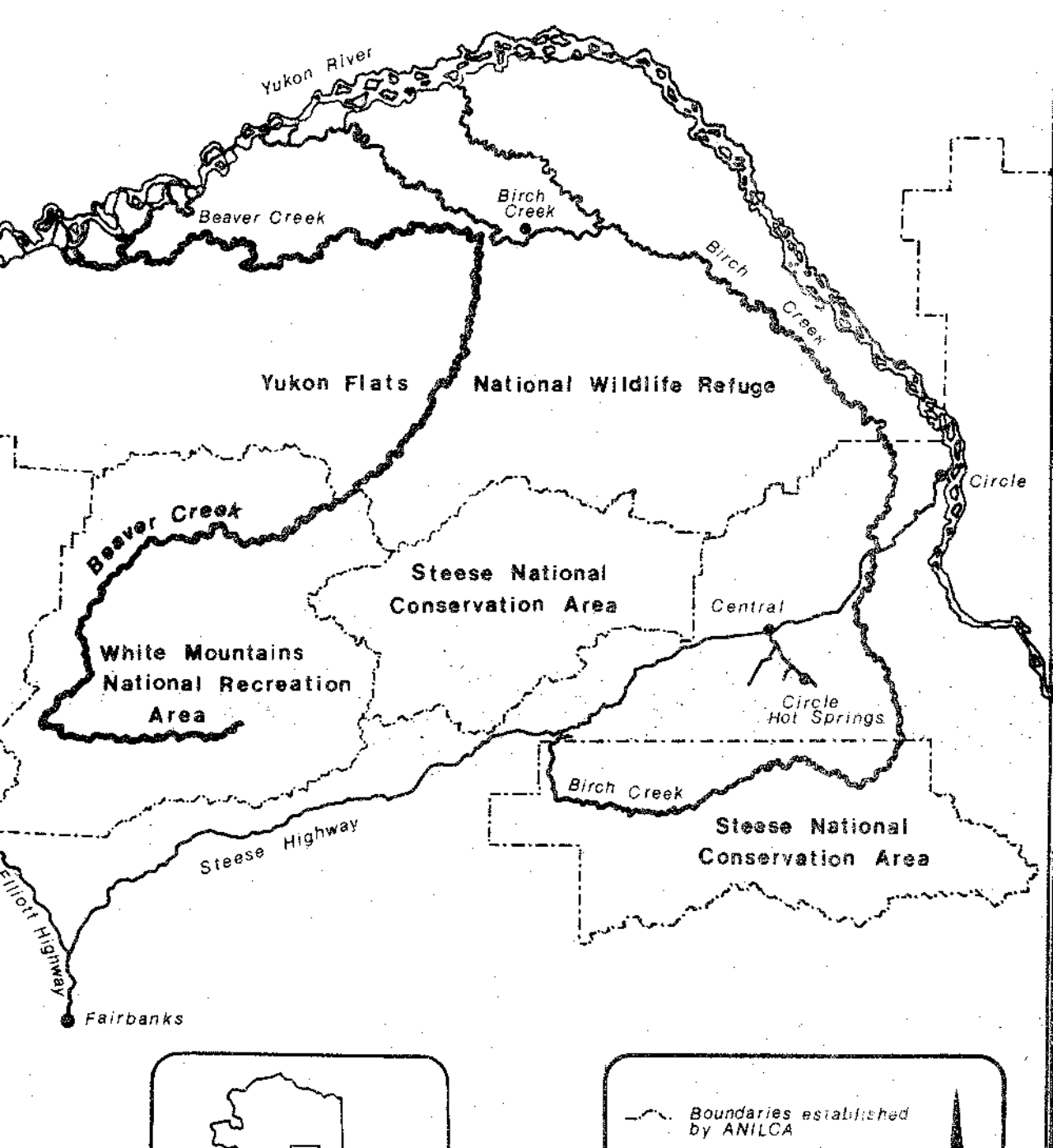
Beaver Creek's fishery consists primarily of Arctic grayling. Northern pike, sheefish, and whitefish are also present in the lower reaches of the river. Wildlife in the area include moose, black and grizzly bear, Dall sheep, wolves, and caribou. Common furbearers are lynx, beaver, marten, wolverine, muskrat, and fox. Other species present include willow ptarmigan, spruce grouse, Canada geese, golden eagle, bald eagle, and the peregrine falcon, an endangered species [At the time this document was released, 1983, the peregrine falcon was an endangered species, it is no longer].

Although it is assumed that early Native people may have hunted, fished, trapped, and traveled on occasion in the upper Beaver Creek area, no record of their use of the area has been found. Historical evidence of non-Natives in the area is largely confined to remnants of old prospectors' and fur-trappers' cabins, except at upper Nome Creek where extensive tailing piles created by bucket line dredging for gold and tin during the early 1900s may be found. Remnants of historic mining trails exist in the region.

The area receives moderate dispersed recreational use from float-boating, hunting, fishing, trapping, cross-country skiing, and snowmobile activities. Placer mining operations are currently taking place on several of the upper tributaries of Beaver Creek outside of the river corridor.

The Steese Highway and U.S. Creek Road commonly provide overland public access to the beginning of Beaver Creek from Fairbanks during the summer season. The lower end of Beaver Creek National Wild River is accessible during the summer only by boat and aircraft. Winter access to the area is generally limited to snowmobiles and aircraft.

Beaver Creek National Wild River — Regional Map



River Corridor Description

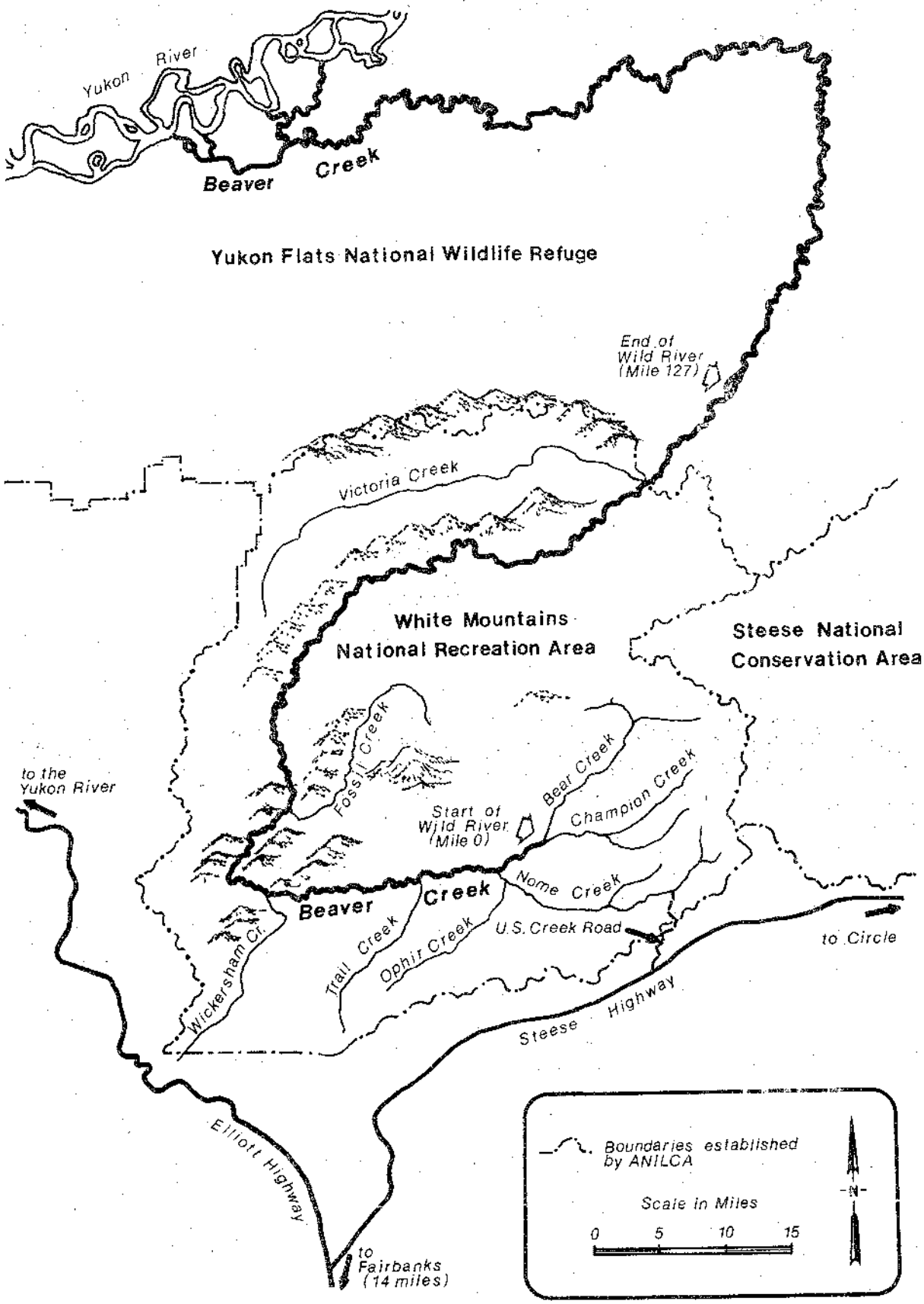
Special resource values, existing uses, and legal constraints all have bearing upon the management of Beaver Creek National Wild River. This portion of the river management plan describes the major factors influencing the identification of issues and concerns and the development of specific management actions. (See Area Map.)

HYDROLOGY AND WATER QUALITY. Beaver Creek originates at the confluence of Bear and Champion Creeks (river mile 0). The first 20 mile river segment is characterized by a narrow channel, 1 to 3 feet deep, flowing through a gravel streambed averaging 50 feet in width, with an average river gradient of 8 feet per river mile. Except for occasional shallow riffles, sufficient water levels are present throughout the summer season for boats to float this segment. In this first segment of Beaver Creek, clear water is present except during occasional periods when placer mining activities are occurring in the Bear, Champion, Ophir, or Nome drainages. Entering near river mile 6, Nome Creek is the most frequently used water course to gain surface access to Beaver Creek from the Steese Highway and U S. Creek Road. Nome Creek flows through a narrow twisting channel, 5 to 20 feet in width, with numerous sweepers (trees which have fallen into the creek obstructing passage).

The second river segment (river mile 20 through 100) is characterized by a widening channel which varies in width from 75 to 150 feet with depths averaging 2 to 4 feet. The average river gradient is 8 feet per river mile. Major drainages entering into Beaver Creek along this segment include Trail, Wickersham, and Fossil Creeks. At several locations Beaver Creek separates into two main channels which flow separately for up to a mile. The river bottom is a mixture of small stories, pebbles, and sand. Exposed gravel bars are numerous. Water quality is generally excellent except occasionally when placer mining activities in the headwaters cause turbidity downstream as far as river mile 30.

The final 27 mile segment of Beaver Creek National Wild River (river mile 100 through 127) is characterized by a gradual reduction in gradient as the river flows into the Yukon Flats National Wildlife Refuge at river mile 111. The river gradient lessens from 8 feet per river mile at the beginning of this segment, to less than 2 feet per river mile. The width of the river channel increases up to 150 feet with average water depths of 2 to 6 feet. The major tributary joining Beaver Creek in this segment is Victoria Creek. Broad gravel bars occur more frequently, and the river bottom, while predominately a mixture of gravels and sands, contains more silt material than the initial 100 river miles. Sufficient water depth and volume is available for shallow-draft motorized boats. Although occasional small tributaries in this section are brownish or tea-colored due to the presence of organic matter from adjacent bogs and sloughs, the overall water quality of the river remains excellent. Beaver Creek continues beyond the end of the national wild river portion another 176 miles through the Yukon Flats National Wildlife Refuge before emptying into the Yukon River.

Beaver Creek National Wild River — Area Map



SOILS. Soils have formed from a variety of parent materials. Upland soils are usually shallow and stony or gravelly, Depending upon elevation, aspect, soil type, and temperature, the vegetation varies from alpine tundra to open forests of spruce, quaking aspen, and white birch.

Valley bottoms frequently have soils formed in deep, loamy sediment washed from the adjacent uplands. Permafrost is often near the surface on north slopes, south facing toe slopes, and valley bottoms. These soils are frequently poorly drained. This characteristic is reflected in vegetation such as sedge tussocks, low shrubs, and stunted black spruce woodlands. Better drained south facing slopes support open forests of spruce, white birch, and quaking aspen. Gravelly soils immediately, adjacent to the river are commonly free of shallow permafrost and support open stands of white spruce, quaking aspen, balsam poplar, and willows.

Surface disturbance of areas underlain by permafrost will change the balance of heat flow, causing thawing and resulting in erosion, surface slumping, and thermokarst formation where ice lenses or wedges are found.

RECREATIONAL OPPORTUNITIES. Beaver Creek National Wild River provides for a wide variety of primitive recreational opportunities. Recreational float-boating in small canoes or rafts, nature observation, fishing, and hunting are the major activities within the river corridor. Attractive, natural campsites are abundant along the river, including the many gravel bars as well as upland forested areas.

Recreational float trips generally start in the Nome Creek area, reached by the State maintained Steese Highway and the U.S. Creek Road. Most parties require one to two days of difficult paddling and pulling their boats over shallow riffles on Nome Creek before reaching leisurely floating on Beaver Creek at river mile 6. Most parties travel an average of 10 to 15 river miles per day, requiring 7 to 10 days to float the national wild river portion of Beaver Creek. Because no surface access is available near the end of the wild river segment to Beaver Creek, the only take-out is by aircraft landing on gravel bars, floatplane, or by continuing an additional 8 to 14 days (268 river miles) to the Dalton Highway at the Yukon River Bridge. Recreational use during the winter months on Beaver Creek is primarily by snowmobile users who access the area via the White Mountains Trail.

Scenic views from Beaver Creek are one of the region's most valuable recreational opportunities. The White Mountains, with elevations averaging from 3,000 to 4,000 feet, form an almost continuous backdrop for the entire national wild river. The jagged white, exposed limestone cliffs and peaks provide a sharp contrast to the green mosaic formed by the surrounding vegetation on low rolling hills. Colorful rock layers in exposed cliffs are occasionally observed. The view from the river averages four miles wide, extending up to ten miles at some locations.

FISHING, HUNTING AND TRAPPING. Excellent opportunities for Arctic grayling fishing exist on Beaver Creek, primarily from river miles 20 - 100; the occasional water turbidity caused by placer mining may diminish the fishing opportunities in the initial river segment. Northern pike, sheefish, and whitefish are also present. Most fishing occurs in conjunction with float-boating. Fly-in fishing

trips originating in Fairbanks also occur throughout the summer months. Good opportunities for wildlife observation and hunting occur throughout the area. Boats and aircraft provide access for hunters along the river. Hunting also occurs in the headwaters area of Bear, Champion, and Nome Creeks where most recreationists use all terrain vehicles for access. Commercial guiding has taken place in the past from private cabins with airstrips at river miles 41 (Herman's Landing) and 46 (Shebal's Landing). Trapping also occurs within the river corridor, and is regulated by the Alaska Department of Fish and Game. The BLM and FWS manage land occupancy activities related to trapping, such as authorizing the construction of trappers' cabins or shelters.

GEOLOGIC AND MINERAL RESOURCES. The river flows through the White Mountains, an area with an identified mineral potential. A uranium and rare earth mineral deposit has been located in the Mount Prindle region to the east of the river corridor. No placer deposits have been discovered within the river corridor. However, placer gold deposits have been located in Bear, Champion, Nome, Trail, and Ophir Creeks. Placer gold deposits were first discovered on Nome Creek in 1910. Large scale bucket line dredging for gold and tin took place on Nome Creek during the 1920-40 period. In terms of known value and production levels, gold is the most important mineral resource in the area of Nome Creek.

HISTORIC USES. No record of early Native use of the Beaver Creek river corridor has been found. Evidence of historic use in the area by non-Natives is largely confined to remnants of trappers' or prospectors' cabins. These log structures are in various stages of disrepair; most are beyond rehabilitation. No properties within the river corridor have been nominated to the National Register of Historic Places.

Dredge tailings from gold mining activity during the early 1900s are visible on upper Nome Creek. Evidence of overland routes crossing the river corridor is limited to the Trail Creek -O'Brien Creek and the Livengood - Colorado Creek winter trails. The Fairbanks - Chandalar winter trail is located along the west side of Beaver Creek from Colorado Creek to the headwaters of Victoria Creek. This trail was used as a winter sled route for the transport of mail and freight.

SUBSISTENCE. Evidence of subsistence use has been identified in the river corridor by the Alaska Department of Fish and Game, including a family living at the confluence of Beaver and Victoria Creeks. Athough no further information is available on subsistence activities in the area, this does not rule out the possibility that other subsistence activities may be present.

FORESTRY AND VEGETATIVE RESOURCES. Vegetative resources within the river corridor include willow, alder, aspen, black and white spruce, and white birch. Poorly drained areas generally support only low scrub and stunted black spruce, while the better drained south-facing slopes generally support open forests of spruce, aspen, and birch. The gravel soils which are normally adjacent to the river and are for the most part free of shallow permafrost, frequently support open stands of white spruce, aspen, poplar, and willows. Past and present uses of the forest resources of the area have been primarily for construction of cabins and firewood for local residents. Future use is probably limited due to the generally low forest density of the area along with the moderately steep topography and difficult access.